



Australian Government

Department of Education, Employment and Workplace Relations

LMFMB3004B Set up, operate and maintain a quilting machine

Revision Number: 1

LMFMB3004B Set up, operate and maintain a quilting machine

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit covers the competency to set up operate and maintain a quilting machine which uses automated processes to apply padding/foam to plain or patterned fabric.
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Application of the Unit

Application of the unit	
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	Nil	

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

<p>Elements describe the essential outcomes of a unit of competency.</p>	<p>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.</p>
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan work operations	1.1. Work instructions are used to determine job requirements, including quality, materials, equipment and quantities 1.2. Workplace health and safety requirements, including personal protection needs, are observed through the work 1.3. Material for processing is selected and inspected for quality 1.4. Machine, the thread guides and needles are identified and checked for safe and effective operation 1.5. Procedures are determined for minimising waste material 1.6. Procedures are identified for maximising energy efficiency while completing the job
2. Set up machines	2.1. Machine settings and adjustments are made in accordance with job requirements and machine and tool manufacturer instructions 2.2. Trial runs are conducted to check machine operation, accuracy and quality of finished work 2.3. Necessary adjustments are made to machine settings
3. Complete the quilting process	3.1. Machine start-up procedure is carried out in accordance with manufacturer instructions 3.2. Materials are fed into machine in accordance with manufacturer instructions, tooling requirements, safe handling procedures and standard workplace operating procedures 3.3. Machine is operated in accordance with its designed capacity and purpose, and to manufacturer recommendations 3.4. Machine operation, including inputs and outcomes, is monitored to ensure product quality and output 3.5. Waste quantities are checked and minimised 3.6. Items that do not meet quality requirements are repaired, recycled or discarded according to workplace procedure 3.7. Problems with the required work or the operation of the machine are identified and reported to appropriate persons
4. Clean up work area and maintain	4.1. Material that can be reused is collected and stored 4.2. Waste and scrap is removed following workplace

ELEMENT	PERFORMANCE CRITERIA
equipment	procedures 4.3. Equipment and work area are cleaned and inspected for serviceable condition in accordance with workplace procedures 4.4. Unserviceable equipment is tagged and faults identified in accordance with workplace procedures 4.5. Operator maintenance is completed in accordance with manufacturer specifications and site procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- collect, organise and understand information related to hand and power tools, work orders, maintenance systems and safety procedures
- communicate ideas and information to enable confirmation of work requirements and specifications, coordination of work with site supervisor, other workers and customers, and the reporting of work outcomes and problems
- plan and organise activities, including the preparation and layout of the worksite and the obtaining of equipment and materials to avoid back tracking, workflow interruptions or wastage
- work with others and in a team by recognising dependencies and using cooperative approaches to optimise workflow and productivity
- use mathematical ideas and techniques to correctly complete measurements and estimate material requirements
- use pre-checking and inspection techniques to anticipate set up, operating and maintenance problems, avoid re-working and wastage
- use workplace technology related to semi-automated or automated quilting machines, including tooling, equipment and accuracy devices

Required knowledge

- the types, characteristics, uses and limitations of the machines
- characteristics, uses and limitations of thread, fabric, padding and foam
- workplace guidelines regarding acceptable tolerance levels
- workplace safety policies and procedures
- procedures for reporting machinery faults and material defects

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Critical aspects of evidence

- Interpret work order and locate and apply relevant information
- Apply safe handling requirements for equipment, products and materials, including use of personal protective equipment
- Read and interpret cutting lists and job specifications to prepare for work
- Follow work instructions, operating procedures and inspection practices to:
 - minimise the risk of injury to self and others
 - prevent damage to goods, equipment and products
 - maintain required production output and product quality
- Identify, set up and operate a semi-automated or automated quilting machine to complete the following:
 - setting up and applying at least two different fabrics and padding/foam
 - identifying and correcting at least two real or simulated machining faults
 - one cam change
- Conduct operator maintenance on the machines and equipment
- Work effectively with others
- Modify activities to cater for variations in workplace context and environment

Resource implications

Access to a semi-automated or automated quilting machine, including tooling equipment and accuracy devices.

Method of assessment

Assessment methods must confirm consistency of performance over time and in a range of workplace relevant contexts.

Assessment should be by direct observation of tasks and questioning on underpinning knowledge.

Assessment should be conducted over time and will generally be in conjunction with assessment of other

EVIDENCE GUIDE	
	units of competency.
Context of assessment	Assessment may occur on the job or in a workplace simulated facility with relevant process equipment, materials, work instructions and deadlines.

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Unit scope	Work involves applying and processing foam/padding to the underside of plain or patterned fabric using a quilting design
Unit context	<ul style="list-style-type: none"> • OHS requirements include legislation, building codes, material safety management systems, hazardous substances, dangerous goods codes and safe operating procedures • Work is carried out in accordance with legislative obligations, environmental legislation, relevant health regulations, manual handling procedures and organisation insurance requirements • Work requires individuals to demonstrate judgement and problem solving skills in the set up and operation of machines • Work will be performed in workplaces which are involved in the manufacture or restoration of mattresses and bases
Quilting machines	<ul style="list-style-type: none"> • Automated quilting machines use semi-automated or automated processes to apply sewn patterns on fabric, foam and padding • Machines are to include either semi-automated or fully automated quilting machines
Material to be processed may include but is not limited to:	<ul style="list-style-type: none"> • plain or patterned fabrics • padding materials and foam
Operator maintenance includes:	<ul style="list-style-type: none"> • the cleaning and refurbishing of the quilting needle unit, thread guides, shuttles and loopers
Personal protective equipment	Personal protective equipment is to include that prescribed under legislation, regulations and enterprise policies and practices
Information and procedures	<ul style="list-style-type: none"> • Workplace procedures relating to the use and operations of tools

RANGE STATEMENT

	<ul style="list-style-type: none"> • Work instructions, including job sheets, plans, drawings and designs • Workplace procedures relating to reporting and communication • Manufacturer specifications and operational procedures
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Unit Sector(s)

Unit sector	Mattress and Base Making
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		